

**AMENDMENTS TO THE SPECIFICATION:**

Kindly replace the paragraph bridging pages 4 and 5 with the following amended paragraph:

In addition, in a processing method of JPEG 2000 bit modeling with a magnitude refinement pass, a processing circuit of the bit modeling refers to significance second bit which is information about as to whether or not a bit to be processed is processed with the magnitude refinement pass at first time, a processed flag and an significance flag so as to make a judgment as to whether or not the bit to be processed is processed, and in the case where the bit to be processed is processed with the magnitude refinement pass, generates a context and a decision of the bit so as to update the processed flag. The processing circuit is simultaneously applied to four bits in one group and processes the four bits in parallel.

Kindly replace the paragraph beginning at page 5, line 10, with the following amended paragraph:

In addition, in a processing method of JPEG 2000 bit modeling with a cleanup pass, a first processing circuit for the bit modeling, when all bits in a group to be processed are unprocessed, making a judgment as to whether or not the bits can be processed collectively and when all the bits in the group are insignificant, generating a special context and a decision, and a second circuit of the bit modeling for not processing processed bits and processing insignificant bits are provided. The first processing circuit is applied to one bit and the second processing circuit is applied to four bits in the group simultaneously so as to process the bits in parallel.

Kindly replace the paragraph beginning at page 17, line 8 through line 12, with the following amended paragraph:

There will be explained below the parallel processing method according to a third embodiment. In the ~~[[second]]~~ third embodiment the bits shown in Fig. 1 to Fig. 5 are processed with a cIn pass. Therefore, the ~~[[second]]~~ third embodiment will be explained while referring to Fig. 1 to Fig. 5.